

AMENDMENTS TO THE CLAIMS:

- Claim 1. (Currently amended) A portable communication apparatus comprising:
an image-capturing section for capturing an image depending on an operation of a shutter key and for sensing images in real-time;
a display that includes a viewfinder display that displays said real-time sensed images and that includes a reference frame that indicates a predetermined success rate for character recognition for a character positioned within the reference frame; and
a character recognition section for recognizing a character ~~characters~~ from a ~~an~~ captured image.
- Claim 2. (Currently amended) The portable communication apparatus according to claim 1, ~~further comprising a wherein said display further displays for displaying at least the captured image, and wherein said display further comprises~~ a character-size adjustment indicator ~~provided on the display, wherein the character-size adjustment indicator comprises~~ a that includes the reference frame having a size which provides a sufficiently high success rate in character recognition when at least one character included in the captured image fits into the reference frame.
- Claim 3. (Currently amended) The portable communication apparatus according to claim 2, wherein the character-size adjustment indicator appears on the display when the portable communication apparatus is set to a character recognition mode.
- Claim 4. (Currently amended) The portable communication apparatus according to claim 2, wherein the character-size adjustment indicator is ~~previously~~ fixed on the display when portable communication apparatus is set to a character recognition mode.
- Claim 5. (Currently amended) The portable communication apparatus according to claim 2, wherein the reference frame is ~~shaped like~~ a rectangle and is oriented horizontally with respect to the display.
- Claim 6. (Currently amended) The portable communication apparatus according to claim 1, further comprising:

a timer ~~that delays for delaying~~ an image-capturing operation of the image-capturing section by a predetermined time period after an the operation of the shutter key has been completed.

Claim 7. (Original) The portable communication apparatus according to claim 6, wherein the predetermined time period is set through an input device of the portable communication apparatus.

Claim 8. (Currently amended) The portable communication apparatus according to claim 2, further comprising:

a timer ~~that delays for delaying~~ an image-capturing operation of the image-capturing section by a predetermined time period after the operation of the shutter key has been completed.

Claim 9. (Currently amended) The portable communication apparatus according to claim 1, further comprising:

a program memory storing a plurality of programs including a mailer program and a browser program; and

a processor for executing at least one program ~~thereon~~,
wherein

the processor starts the mailer program when a string of the recognized characters represents an e-mail address, ~~the processor starts the mailer program,~~

the processor starts the browser program when a string of the recognized characters represents a URL (uniform resource locator), ~~the processor starts the browser program,~~ and

the processor starts making a call at the phone number when a string of the recognized characters represents a phone number, ~~the processor starts making a call at the phone number.~~

Claim 10. (Currently amended) The portable communication apparatus according to claim 1, further comprising:

a memory storing a plurality ~~of types~~ of recognition criterion each corresponding to a

different ~~type types~~ of a character string of ~~characters to be recognized~~,
wherein the character recognition section uses one of the plurality types of recognition
criterion to recognize a character ~~characters~~ from the captured image.

Claim 11. (Currently amended) The portable communication apparatus according to
claim 9, further comprising:

a memory storing a plurality of ~~types~~ of recognition criterion each corresponding to a
different ~~type types~~ of a character string of ~~characters to be recognized~~,
wherein the character recognition section uses one of the plurality types of recognition
criterion to recognize a character ~~characters~~ from the captured image.

Claim 12. (Currently amended) A data input method in a portable communication
apparatus having an image-capturing function of capturing an image, the method comprising:

capturing an image depending on an operation of a shutter key; and
recognizing a character ~~characters~~ from a captured image to enter the character
~~characters~~ as input data,

wherein said portable communication apparatus comprises a viewfinder display that
displays images sensed in real-time and a reference frame that indicates a predetermined
success rate for character recognition of a character positioned within the reference frame,
and

wherein said recognizing a character recognizes a character positioned within said
reference frame when said image is captured.

Claim 13. (Currently amended) A method for recognizing characters in a portable
communication apparatus having an image-capturing device and a display, the method
comprising:

a) setting a character-size adjustment indicator on the display, wherein the character-
size adjustment indicator comprises a reference frame having a size which provides a
sufficiently high success rate in character recognition;

b) capturing an image depending on an operation of a shutter key when ~~a at least one~~
character displayed on the display fits into the reference frame;

e) recognizing the ~~at least one~~ character within the reference frame from a captured

image; and

d) displaying a recognized character ~~characters~~ in a predetermined display area on the display.

Claim 14. (Currently amended) The method according to claim 13, wherein the capturing of an image ~~the step e)~~ comprises:

e.1) image-processing the captured image to produce a processed image;

e.2) clipping out a portion of the processed image within the reference frame; and

e.3) recognizing the at least one character from the clipped portion of the processed image.

Claim 15. (Currently amended) The method according to claim 13, wherein the capturing of an image ~~the step e)~~ comprises:

e.1) image-processing a portion of the captured image within the reference frame to produce a processed image; and

e.2) recognizing the at least one character from the processed image.

Claim 16. (Currently amended) The method according to claim 13, further comprising:

e) repeating capturing an image, recognizing the character, and displaying a recognized character ~~the steps b)-d)~~ by sequentially selecting portions of a string of characters displayed on the display, each portion including a at least one character which fits into the reference frame, wherein a plurality of the recognized characters are displayed on the display by combining the portions in series, each of which includes a at least one recognized character.

Claim 17. (Currently amended) The method according to claim 13, wherein the capturing of an image ~~the step e)~~ comprises: delaying an image-capturing operation by a predetermined time period after the operation of the shutter key has been completed.

Claim 18. (Currently amended) The method according to claim 13, wherein the capturing of an image ~~the step e)~~ comprises:

e.1) storing a plurality of ~~types~~ of recognition criterion each corresponding to a

different type of character string ~~types of a string of characters to be recognized;~~

e.2) determining a type of a character ~~string of characters to be recognized;~~ and

e.3) recognizing a ~~the at-least-one~~ character within the reference frame based on a recognition criterion corresponding to the determined type of the character string of ~~characters to be recognized.~~

Claim 19. (Currently amended) The method according to claim 18, further comprising:

e) starting a mailer program when the recognized character string comprises ~~of the~~ characters recognized ~~is of an e-mail address type, the processor starts a mailer program,;~~

f) starting a browser program when the recognized character string comprises ~~of the~~ characters recognized ~~is of a URL (uniform resource locator) type, the processor starts a browser program,;~~ and

g) making a call using a phone number represented by the recognized character string characters when the recognized character string comprises ~~of the characters recognized~~ ~~is of a~~ phone number type, the processor starts making a call at a phone number represented by the string of the characters recognized.

Claim 20. (Currently amended) A program embodied in a computer readable medium executable by instructing a computer to recognize characters in a portable communication apparatus having an image-capturing device and a display, the program comprising the steps of:

a) instructions for setting a character-size adjustment indicator on the display, wherein the character-size adjustment indicator comprises a reference frame having a size which provides a sufficiently high success rate in character recognition;

b) instructions for capturing an image depending on an operation of a shutter key when a ~~at-least-one~~ character displayed on the display fits into the reference frame;

e) instructions for recognizing the ~~at-least-one~~ character within the reference frame from a captured image; and

d) instructions for displaying a recognized character ~~characters~~ in a predetermined display area on the display.